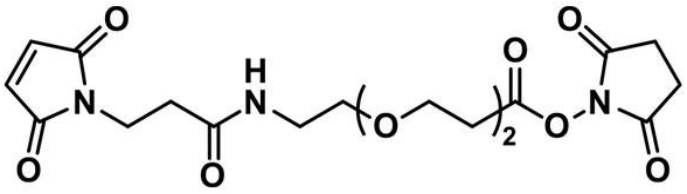
www.vectorlabs.com
Email: customerservice@vectorlabs.com
Telephone: (650) 697-3600

MAL-DPEG®₂-NHS ESTER

SKU: QBD-10266



DESCRIPTION

MAL-dPEG®2-NHS ester, product number QBD-10266, is a thiol-reactive and amine-reactive crosslinking reagent that joins a sulfhydryl to a free amine. The sulfhydryl groups react with a maleimide group via a Michael addition reaction. The amines form amide bonds with the crosslinker by nucleophilic substitution of the N-hydroxysuccinimidyl (NHS) ester of a carboxylic acid group. The maleimide and NHS functional groups on the crosslinking compound sit at either end of a short, discrete-length polyethylene glycol chain (dPEG®).

The reaction of the maleimide end of MAL-dPEG®2-NHS ester proceeds optimally at pH 7.0 – 7.5, though it can go as low as pH 6.5. Use the lowest reasonable pH within this range. Above pH 7.5, free amines compete with free thiols at the maleimide reaction site, causing confusing results. Moreover, at higher pH values, the maleimide ring may open to form unreactive maleamic acid.

The use of MAL-dPEG®2-NHS ester has been published in many different scientific papers and patents. The following list highlights some of the more notable uses of this product:
Cell targeting;
Crosslinking peptides to passivated nanoparticle surfaces;
Stem cell membrane engineering;
Biosensor development;
Cell capture using aptamers;
Controlled, targeted delivery of siRNA;
Development of extracellular antibody-drug conjugates; and,
Development of multiplex assays.

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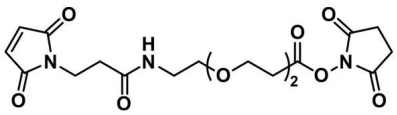
SPECIFICATIONS

CAS Number	955094-26-5
Molecular Weight	425.39; single compound
Chemical Formula	$C_{18}H_{23}N_3O_9$
Purity	> 98%
Unit Size	100 mg, 1000 mg
Solubility	Methylene chloride, Acetonitrile, DMAC or DMSO.
Spacers	dPEG® Spacer is 16 atoms and 17.7 Å
Storage Instructions	-20°C; Always let come to room temperature before opening; be careful to limit exposure to moisture and restore under an inert atmosphere; stock solutions can be prepared with dry solvent and kept for several days (freeze when not in use). dPEG® pegylation compounds are generally hygroscopic and should be treated as such. This will be less noticeable with liquids, but the solids will become tacky and difficult to manipulate, if care is not taken to minimize air exposure.
Shipping Instructions	Ambient

DOCUMENTS

- Safety Data Sheet
- Datasheet

GALLERY IMAGES



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